

WHAT IS CLAIMED IS:

1 1. A method for directing control of communication signals in a
2 concatenated payload in a communication circuit, the method comprising:
3 receiving a multiplex order of the concatenated payload in M communication
4 signals;
5 dividing the M communication signals by three to determine a number Y;
6 determining the control of the M communication signals by:
7 designating ^athe first signal of the M communication signals as a ^{1st} ~~the~~
8 control signal;
9 designating ^athe second signal through a Yth signal of the M
10 communication signals as being controlled by the immediately
11 preceding signal thereto; and
12 designating each Y+1st signal of the M signals through the ^aMth
13 communication signal as being controlled by a signal Y
14 positions prior thereto.

1 2. The method of claim 1 wherein the communication signals are
2 synchronous transport signals.

1 3. The method of claim 1 wherein the M communication signals are in a
2 multiplexed order.

1 4. The method of claim 1 wherein the first signal of the M
2 communication signals is a control signal read and write capability for frequency
3 difference buffering using increment/decrement technology.

1 5. The method of claim 1 wherein M is one of 1, 24, 48, 96, 192, 768, and
2 3072.

1 6. The method of claim 1 wherein M is a multiple of three and two and is
2 further greater than or equal to twelve.

1 7. The method of claim 1 wherein the communication circuit is disposed
2 on a router.

1 8. The method of claim 1 wherein the communication circuit is disposed
2 on an application specific integrated circuit (ASIC).

1 9. The method of claim 1 wherein the concatenated payload includes one
2 or more of at least one of an STS-1, an STS-3, an STS-48, an STS-12, an STS-24, and
3 an STS-X, wherein X is a multiple of three.

1 10. A communication circuit for directing control of communication
2 signals in a concatenated payload, the apparatus comprising:
3 a module configured to receive a multiplex order of the concatenated payload
4 in M communication signals;
5 a module configured to divide the M communication signals by three to
6 determine a number Y;
7 a module configured to control of the M communication signals by:
8 designating the first signal of the M communication signals as a
9 control signal;
10 designating the second signal through a Yth signal of the M
11 communication signals as being controlled by the immediately
12 preceding signal thereto; and
13 designating each Y+1th signal of the M signals through the Mth
14 communication signal as being controlled by a signal Y
15 positions prior thereto.

1 11. The communication circuit of claim 10 wherein the communication
2 signals are synchronous transport signals.

1 12. The communication circuit of claim 10 wherein the M communication
2 signals are in a multiplexed order.

1 13. The communication circuit of claim 10 wherein the first signal of the
2 M communication signals is a control signal read and write capability for frequency
3 difference buffering using increment/decrement technology.

1 14. The communication circuit of claim 10 wherein M is one of 1, 24, 48,
2 96, 192, 768, and 3072.

1 15. The communication circuit of claim 10 wherein M is a multiple of
2 three and two and is further greater than or equal to twelve.

1 16. The communication circuit of claim 10 wherein the communication
2 circuit is disposed on a router.

1 17. The communication circuit of claim 10 wherein the communication
2 circuit is an application specific integrated circuit (ASIC).

1 18. The communication circuit of claim 10 wherein the concatenated
2 payload includes one or more of at least one of an STS-1, an STS-3, an STS-48, an
3 STS-12, an STS-24, and an STS-X, wherein X is a multiple of three

1 19. A computer program product for directing control of communication
2 signals in a concatenated payload, the computer program product comprising:
3 signal bearing media bearing programming adapted to:
4 receive a multiplex order of the concatenated payload in M communication
5 signals;
6 divide the M communication signals by three to determine a number Y;
7 control the M communication signals by:
8 designating the first signal of the M communication signals as a
9 control signal;
10 designating the second signal through a Yth signal of the M
11 communication signals as being controlled by the immediately
12 preceding signal thereto; and

13 designating each Y+1th signal of the M signals through the Mth
14 communication signal as being controlled by a signal Y
15 positions prior thereto.

1 20. The computer program product of claim 19, wherein said signal
2 bearing media is transmission media.

1 21. The computer program product of claim 19, wherein said signal
2 bearing media is recordable media.

1 22. A communication system for directing control of communication
2 signals in a concatenated payload in a communication circuit, the communication
3 system comprising:

4 means for receiving a multiplex order of the concatenated payload in M
5 communication signals;
6 means for dividing the M communication signals by three to determine a
7 number Y;
8 means for determining the control of the M communication signals
9 implemented with:
10 means for designating the first signal of the M communication signals
11 as a control signal;
12 means for designating the second signal through a Yth signal of the M
13 communication signals as being controlled by the immediately
14 preceding signal thereto; and
15 means for designating each Y+1th signal of the M signals through the
16 Mth communication signal as being controlled by a signal Y
17 positions prior thereto.

1 23. The communication system of claim 22 wherein the communication
2 signals are synchronous transport signals.

1 24. The communication system of claim 22 wherein the M communication
2 signals are in a multiplexed order.

1 25. The communication system of claim 22 wherein the first signal of the
2 M communication signals is a control signal read and write capability for frequency
3 difference buffering using increment/decrement technology.

1 26. The communication system of claim 22 wherein M is one of 1, 24, 48,
2 96, 192, 768, and 3072.

1 27. The communication system of claim 22 wherein M is a multiple of
2 three and two and is further greater than or equal to twelve.

1 28. The communication system of claim 22 wherein the communication
2 circuit is disposed on a router.

1 29. The communication system of claim 22 wherein the communication
2 circuit is disposed on an application specific integrated circuit (ASIC).

1 30. The communication system of claim 22 wherein the concatenated
2 payload includes one or more of at least one of an STS-1, an STS-3, an STS-48, an
3 STS-12, an STS-24, and an STS-X, wherein X is a multiple of three.